

REMARKS

Claims 1-17 and 19-24 remain pending in this amendment. Claims 1- 15 have been rejected, and claims 16, 17, 19, and 20 have been found to be allowable if rewritten in to independent form. Claims 1, 2, 9, 11, and 13-15 are amended to further clarify the inventive subject matter recited therein. Claims 21 – 24 are allowed claims 16, 17, 19, and 20 rewritten in to independent form to include the limitations of the base claim and any intervening claims. No new matter has been added. All of the claims remaining in the application are now believed allowable for the reasons stated below. Thus, applicants respectfully request further review and examination of the claims.

Rejections under 35 U.S.C. § 102(b)

Claim 14 was rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,489,349 (“*Okada*”).

Amended Claim 14 recites “... a brightness limitation control circuit configured to receive a plurality of color reference signals and configured to generate a feedback signal to regulate the brightness of the at least one color-video channel based on detection of a signal level of a color reference signal having only the lowest signal level from among the plurality of color reference signals.”

Okada is directed to a video brightness control circuit that utilizes an “average picture level (APL) detector to measure the average brightness of the video signal...” (See Abstract). Throughout *Okada*, including the portions at Col. 10, line 67 through Col. 11, line 12, referenced by the Examiner, *Okada* describes using the APL detector to find the average from among the red, green, and blue signals received from the minimum detection circuit 180 through the peak detector 190 and gain controls 170Y and 170C.

Nowhere does *Okada* teach generating a feedback signal based on detection of a signal level of a color reference signal having only the lowest signal level from among the plurality of color reference signals. Rather, *Okada* clearly teaches supplying all of the individual color signals to the average picture level detector where an average, not the lowest, of the color signals is used to generate a control signal that is “provided to each of the vertical correction circuits **10R**, **10G**, and **10B**” (see Col. 9, lines 11-12).

In view of the foregoing, applicants respectfully submit that claim 14 is clearly allowable over *Okada*.

Rejections under 35 U.S.C. § 103(a)

Claim 15 was rejected under 35 U.S.C. § 103(a) as obvious over *Okada* in view of *Shanley, II et al.* (of record).

Claim 15, which depends from claim 14, recites the feedback signal being responsive to a comparison of only a reference signal and the minimum signal level. As the Examiner notes, *Shanley, II et al.* teach a comparator that senses an output signal of a matrix and a reference input that “senses both a brightness determinative reference voltage and a beam current control voltage (Fig. 1, col. 3, lines 34-68).” Applicants respectfully submit that claim 15 is allowable for these features as well as for the reason claim 15 is allowable.

Claims 9-10 and 13 were rejected under 35 U.S.C. § 103(a) as obvious over *Shanley, II et al.* in view of *Okada*.

Claim 9 recites “a comparator that compares said minimum signal level with a fixed voltage reference signal.” In contrast, *Shanley, II et al.* teach a circuit that has only a comparator. That is, rather than using a detector to first determine which of a plurality of color channel reference signals has the lowest signal level, and using a comparator to comparing the color channel with the lowest signal level to a reference signal, *Shanley, II et al.* teach only using a comparator to compare a reference to each color channel directly (*see e.g., Shanley, II et al.* at Figure 1). For example, comparator 55 is connected directly to the blue color channel (*see e.g., Shanley, II et al.* at Figure 1). There is no intermediate detector to first determine which color channel has the lowest signal level before the comparator 55 compares the signal level to the reference (*see e.g., Shanley, II et al.* at Figure 1). As such, comparator 55 is arranged only to directly compare a reference signal level to the blue color channel signal level (*see e.g., Shanley, II et al.* at Figure 1). Nowhere do *Shanley, II et al.* teach a minimum signal detector that outputs the signal level of the color channel reference signal having the lowest signal level as is described in amended Claim 9.

Moreover, *Shanley, II et al.* teach a comparator that receives a single color channel signal as input, rather than each of the red, green and blue color channel signals (*see e.g.,*

Shanley, II et al. at Figure 1). For example, Comparator 55 receives only the blue color channel as input (see e.g., *Shanley, II et al.* at Figure 1). Thus, *Shanley, II et al.* do not teach a minimum signal detector that receives a plurality of color channel reference signals as input as is recited in amended Claim 9.

The teachings of *Okada* as discussed above with respect to claim 14 do not provide the missing minimum signal detector because he uses the average of the signals as determined by the APL and not the minimum. Thus, even if one were motivated to combine *Okada* with *Shanley II, et al.*, the combination would fall short of the claimed invention.

For these reasons, applicants respectfully submit that claims 9 and 10, as well as claim 13, which recites limitations similar to claim 9, are allowable.

Claims 1-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sano et. al.*, U.S. Pat. No. 5,400,086 (hereinafter *Sano et al.*) in view of *Shanley, II et al.* and further in view of *Okada*.

Claim 1 has been amended in a manner consistent with amended Claim 9. As such, none of the cited references, singly or in combination, disclose, teach or suggest all of the limitations of amended Claim 1. Therefore, amended Claim 1 is believed to be allowable for the reasons discussed above with respect to claims 9-10 and 13-15, and notice to that affect is respectfully requested.

Claim 8 depends from amended Claim 1. Claim 8 is therefore allowable for at least the same reasons as that of Claim 1 as well as any additional limitations it recites. For example, Claim 8 recites “an adder circuit coupled in the signal path...wherein a feedback signal...is coupled as input to the adder circuit.” Claim 8 further recites that the feedback signal is “generated according to the color channel video signal and [a] color channel reference signal.” Base Claim 1 recites “a control circuit and clamping circuit for generating [the] color channel reference signal and controlling a color channel video signal for each color channel.”

In contrast, *Sano et al.* do not teach such a feedback signal generated based upon two individually generated signals. For example, the feedback signal of *Sano et al.* is the output from sample and hold circuits 60R, 60B and 60G which is generated by comparators 59R, 59G and 59B according to a color signals (output from adders 58R, 58G and 58B) and a brightness

control signal (*see, e.g., Sano et al.* at Figure 21). In other words, the feedback signal is generated according to a color signal and a brightness control signal. This brightness control signal, however, is a single signal that is generated and used by all channels commonly (*see, e.g., Sano et al.* at Figure 21) rather than an individual color reference signal separately generated for each color channel as is described in applicant's Claim 1. As such, none of the cited references, singly or in combination, disclose, teach or suggest all of the limitations of Applicant's Claim 8. Therefore, dependant Claim 8 is believed to be allowable and notice to that affect is respectfully requested.

Claim 11 has been rejected as obvious over *Sano et al.* in view of *Okada*.

Claim 11 has been amended in a manner consistent with amended Claim 9. As such, none of the cited references, singly or in combination, disclose, teach or suggest all of the limitations of amended Claim 11. In addition, Claim 11 recites "a second adder in the path of the color channel reference signal, which said brightness feedback signal is coupled." Claim 11 further recites that the "brightness feedback signal [is] based on a detection of a signal level of a color channel reference signal having the lowest signal level among the plurality of adjusted color channel reference signals." Neither *Sano et al.* nor *Okada* disclose the second adder recited in applicant's Claim 11 that is arranged to receive the brightness feedback signal as input.

Claim 12 has been rejected over *Sano et al.* and *Shanley, II et al.* and *Okada*.

Claim 12 depends from and further limits amended Claim 11. Claim 12 is therefore allowable for at least the same reasons as that of Claim 11 as well as any additional limitations it recites.

Claims 21 – 24 are allowed claims 16, 17, 19, and 20 rewritten in to independent form to include the limitations of the base claim and any intervening claims. No new matter has been added.

In view of the foregoing, applicants respectfully submit that claims 1-15 are in condition for allowance as are allowable claims 16, 17, 19, and 20, and related claims 21-14. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicants' undersigned representative at (206) 622-4900 in

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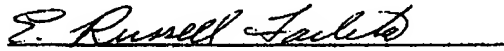
order to expeditiously resolve prosecution of this application. Consequently, early and favorable action allowing these claims and passing this case to issuance is respectfully solicited.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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